

REPORT ON THE USE OF THE EXPRESSION "NOMENCLATURE  
BINAIRE" IN THE "RÈGLES INTERNATIONALES  
DE LA NOMENCLATURE ZOOLOGIQUE"  
BY THE  
INTERNATIONAL COMMISSION on ZOOLOGICAL NOMENCLATURE

To:—

The President of the Section  
on Nomenclature,  
Thirteenth International Congress  
of Zoology,  
Paris.

Secretariat of the Commission,  
Hotel Ste. Anne,  
Rue Ste. Anne,  
Paris (1<sup>re</sup>).  
22nd July, 1948.

In compliance with the request addressed to us at the close of the Twelfth International Congress of Zoology at Lisbon in 1935, we, the International Commission on Zoological Nomenclature, assembled in Paris at the meeting of the Thirteenth International Congress of Zoology, have the honour to submit the following Report on the meaning of the expression "nomenclature binaire" as used in the *Règles Internationales de la Nomenclature Zoologique*.

**I. The historical background**

2. The problem involved in the discussions which have for so long centred around the interpretation of the expression "nomenclature binaire" has its roots in events which took place in the earliest days of the Linnean system of zoological nomenclature. Some understanding of the history of this problem is therefore an essential preliminary to any just appraisal of the issues involved. We consider, therefore, that it will be valuable if, before setting out the conclusions which we have reached on the questions referred to us, we summarise the sequence of events which led up to the situation which prompted your predecessor to invite us to undertake the present investigation.

3. The first point to be noted is that, prior to the publication in 1758 of the Tenth Edition of the *Systema Naturae*, Linnaeus and most of his contemporaries referred to each of the species of the Animal Kingdom with which they were acquainted by a scientific designation consisting of a polyverbal phrase in the Latin tongue, which consisted (i) of a noun substantive in the nominative singular (written with a capital initial letter) and (ii) any number of descriptive words, which might be either in the nominative singular in grammatical

apposition to the first word of the complete phrase or in the genitive or dative cases and in either the singular or plural number. The first word in a scientific designation of this kind (i.e. the noun substantive in the nominative singular) was used to denote each of a number of allied species and accordingly corresponds to the generic name of modern zoological nomenclature. The words which followed the initial noun substantive served to denote the species concerned within the ambit of the genus in which it was placed, but they did so in virtue of constituting an abbreviated specific diagnosis and did not constitute a name. The only scientific designation which any species possessed at that time was the complete phrase consisting of the generic name and the abbreviated diagnosis by which it was immediately followed.

4. In the 10th edition of the *Systema Naturae* published in 1758 Linnaeus introduced an entirely new method for giving scientific designations to species in the Animal Kingdom. Under this system the earlier method of using an abbreviated diagnosis to indicate the species was abandoned. Henceforth every species was given a name consisting of a binominal combination of two words. Of these words, the first, as in the earlier system, consisted of a noun substantive in the nominative singular. This name denoted the genus to which the species was assigned. The second word of the binominal combination consisted either (i) of a noun in the nominative singular in apposition to the generic name, (ii) of a noun in the genitive singular, or (iii) of an adjective agreeing in gender, number and case with the generic name. This second word denoted the species itself and separated it from every other species placed in the same genus. The first of these names was the "nomen genericum," the second the "nomen triviale" and the binominal combination itself the "nomen specificum."

5. The binominal system of nomenclature offered very great practical advantages over that previously in use, for under this system it was possible to refer to any species by the use of a concise phrase consisting of two words and two words only in place of the long phrases previously used to denote species, phrases which by the nature of the circumstances were much too unwieldy to be conveniently memorised. By reason both of its convenience and its elegance the new system for naming species spread very rapidly and by the end of the XVIIIth century had won universal acceptance. From that time onwards the Linnean system of binominal nomenclature became the recognised system for naming species throughout the Animal Kingdom. It was accepted as a matter of course in all the unofficial codes of nomenclature drawn up during the XIXth century and equally without question was taken as the foundation of the system of zoological nomenclature first in the *Règles* adopted by the First International Congress of Zoology at its meeting held in Paris in 1889 and again in the present *Règles*, as adopted at Berlin in 1901.

6. It was only to be expected, however, that a certain number of books would be published after 1757, the authors of which continued to use the older system under which species were not given names but were referred to in phrases consisting of generic names and specific diagnoses. There was in fact a period of about 40 years subsequent to 1757 in which both the new binominal system of nomenclature introduced by Linnaeus in the 10th edition of the *Systema Naturae* and the older system of polyverbal scientific designations were

used side by side. During this period, however, the adherents of the new system were rapidly gaining ground, while the exponents of the older method became fewer and fewer.

7. No problem of nomenclature arises in the case of books published after 1757 in which the older system was adopted, in so far as those books were concerned only with species, for clearly authors who used polyverbal descriptive phrases to designate species did not accept, at least for species, the system of nomenclature introduced by Linnaeus in 1758. A problem did arise, however, in the case of books belonging to this class in which new generic names were proposed, for these generic names, being noun substantives in the nominative singular, were indistinguishable from generic names proposed by authors who adopted the binominal system of nomenclature. It is therefore no matter for surprise that a considerable number of generic names introduced after 1757 by non-binominal authors were nevertheless accepted by contemporary workers and came into general use. An appreciable number of such names (e.g. those proposed by Brisson for the Class Aves in his *Ornithologia* published in 1760) are commonly accepted at the present day.

8. Linnaeus himself never formulated a code of rules for zoological nomenclature, apparently considering that sufficient guidance was provided by the 10th edition of the *Systema Naturae* itself, when read in conjunction with the principles of scientific nomenclature which he had propounded for botany in his *Philosophia botanica* of 1751. Thus zoologists received no guidance from Linnaeus on the question whether a generic name published by a non-binominal author subsequent to the introduction of the binominal system in 1758 was or was not to be accepted as an available name.

9. It was not until the meeting of the First International Congress of Zoology held in Paris in 1889 that a serious effort was made to formulate an authoritative international code of zoological nomenclature. By that time the majority of zoologists had come to reject generic names published by non-binominal authors, but a considerable minority had adopted the opposite point of view. This minority was to be found among specialists in practically every group of the Animal Kingdom, while some (such as ornithologists who were faced by the special problem of the Brissonian names referred to above) were practically unanimous in their support of the claims of generic names proposed by non-binominal authors. The draftsmen of the *Règles* discussed in Paris were therefore in a serious dilemma: on the one hand everyone was agreed that the *Règles* must make it clear that the recognised system of zoological nomenclature was the binominal system introduced by Linnaeus (the only question in this regard being whether the system should rank from the appearance of the 10th edition of the *Systema Naturae* in 1758 or whether it should date from 1767, the year in which the 12th edition was published); on the other hand, if the binominal aspect of the Linnaean system were to be categorically proclaimed, it would arouse the opposition of those zoologists who consistently accepted generic names proposed after 1757 by non-binominal authors. Clearly a division of opinion in the Congress on this important question might well wreck the chance of securing the acceptance of the proposed international code as a whole. Regrettably, though perhaps not unnaturally,

the draftsmen decided to circumvent this difficulty by the insertion in the draft *Règles* of phraseology of a deliberately ambiguous character which it was hoped would make it possible either to accept or to reject generic names proposed by non-binominal authors. Thus it was that the ill-starred phrase "binaire et binominale" came to be introduced as the definition of the "nomenclature adoptée pour les êtres organisés."

10. The relevant passages in the "*Règles de la Nomenclature des Êtres Organisés*" adopted by the Paris Congress in 1889 are to be found first, in Article 1, second, in proviso (b) to Article 44 and third, in Article 45. These provisions read as follows:—

1. La nomenclature adoptée pour les êtres organisés est binaire et binominale. . .
44. Le nom attribué à chaque genre . . . ne peut être que celui sous lequel ils ont été le plus anciennement désignés, à la condition.
  - (a) . . .
  - (b) que l'auteur ait effectivement entendu appliquer les règles de la nomenclature binaire.
45. La dixième édition du *Systema Naturae* (1758) est le point de départ de la nomenclature zoologique. L'année 1758 est donc la date à laquelle les zoologistes doivent remonter pour rechercher les noms génériques ou spécifiques les plus anciens, pourvu qu'ils soient conformes aux règles fondamentales de la nomenclature.

11. The *Règles* adopted in 1889 were of the greatest value as providing for the first time an agreed international basis for the discussion of the difficult and controversial problems involved. It was not to be expected, however, that after nearly 150 years of unfettered individualism zoologists would accept without question the first attempt to introduce the rule of law, however anxious they might be—and undoubtedly were—to put an end to the state of chaos in which they found themselves. The controversy which ensued was naturally focussed around the definition to be given to the Law of Priority, for this one provision holds the key to the whole system of nomenclature. It was inevitable therefore that the compromise involved in the adoption in Paris of the ambiguous expression "binaire et binominale" should be called in question. The controversy in regard to the *Règles* of 1889 came to a head six years later when in 1895 the Third International Congress of Zoology assembled at Leyden. A successful effort was made to avoid any acrimonious discussion on the floor of the Congress, it being agreed unanimously that a further attempt should be made to secure a generally acceptable solution of the difficulties which had arisen. It was accordingly decided to establish an International Commission on Zoological Nomenclature charged with the duty of examining all codes of nomenclature then in use (including the various unofficial codes) and, in the light of that examination, to submit recommendations to the next meeting of the Congress.

12. The International Commission held a special meeting for this purpose at Baden-Baden in the year 1898 and agreed upon a Report to be submitted to the Fourth International Congress of Zoology at its meeting to be held at Cambridge (England) in the following year. Owing to the outbreak of fresh dissension the Report prepared by the Commission was not considered by the Cambridge Congress which decided to enlarge the composition of the Commission and to instruct the reconstituted Commission to continue its studies and to report thereon to the next Congress. The Commission accordingly prepared a



further draft of the proposed *Règles* and this was considered by the Fifth International Congress of Zoology at its meeting held at Berlin in 1901. Subject only to certain minor amendments, the draft proposed by the Commission was accepted by that Congress. The *Règles* then adopted are those in force to-day, only trifling changes (apart from the redrafting of Article 30 at Boston in 1907) having since been made in the text adopted at Berlin.

13. The subject on which we have been instructed to report is dealt with in the present *Règles* in Article 2, in proviso (b) to Article 25 and in Article 26. The texts of these Articles as adopted by the Berlin Congress are as follows:—

2. La dénomination scientifique des animaux est uninominale pour le sous genre et tous les groupes supérieures; binominale pour l'espèce; trinominale pour la sous espèce.

25. Le nom adopté pour chaque genre et chaque espèce ne peut être que celui sous lequel ils ont été le plus anciennement désignés, à la condition:

(a) ...

(b) que l'auteur ait appliqué les principes de la nomenclature binaire.

26. La dixième édition du *Systema Naturae* de Linné (1758) est l'ouvrage qui a inauguré l'application générale de la Nomenclature binaire en zoologie. La date de 1758 est donc acceptée comme point de départ de la Nomenclature zoologique et comme entrée en vigueur de la loi de priorité.

14. When we compare the provisions adopted at Berlin (paragraph 13) with those adopted 12 years earlier in Paris (paragraph 10), we find that the discussions during that period had failed to secure agreement upon a clear-cut logical decision. The new provisions are seen to contain the same implicit contradictions as their predecessors, the only change being a shift of emphasis consequent upon changes in the phraseology employed. Those zoologists who rejected generic names proposed by authors who did not accept the principles of binominal nomenclature scored a point by securing the deletion of the adjective "binaire" from Article 2, which replaced the former Article 1, but the value of this change was largely vitiated by the fact that in the new Article the adjective "binominale" was now made to apply to the "dénomination scientifique des animaux" and not, as previously, to "la nomenclature adoptée pour les êtres organisés." The proviso (b) to Article 44 which now became Article 25 was substantially redrafted. The new wording was such that, according to the standpoint of the reader, it could be interpreted either as supporting the strict binominal view or as upholding the contention of those who accepted as available generic names published after 1757 by non-binominal authors. Zoologists who held the first of these views could point to the fact (1) that the compromise phrase "ait effectivement entendu appliquer" had been replaced by the more definite phrase "ait appliqué" and (2) that in the later part of the same sentence the word "principes" had replaced the word "règles." On the other hand, those zoologists who took the opposite view could point to the fact that the adjective "binaire," on which they based the principal part of their case, still appeared in this proviso. When we turn to Article 26 we find that, as compared with Article 45 of the *Règles* of 1889, of which it is the counterpart, the advocates of the strictly binominal view had also made some headway, for the crucial significance of the 10th edition of the *Systema Naturae* was considerably enhanced by the insertion of the statement that it was this work "qui a inauguré l'application générale de la Nomenclature binaire." It must be noted, however, that in this Article, as in Article 25, the

advocates of generic names published after 1757 by non-binominal authors were successful in retaining the ambiguous adjective "binaire."

15. The compromises adopted in the draft submitted to the Berlin Congress and incorporated by that body in the present *Règles* served, it may be concluded, as a valuable bridge between the strict binominalists who were implacably opposed to the wording used in the *Règles* of 1889 and those zoologists who desired to see the vindication of post-1757 generic names published by non-binominal authors, for the former had succeeded in securing a more acceptable phraseology, while the latter had been able to resist all attempts to eliminate the adjective "binaire" from the new texts. Naturally, no permanent solution could be secured by the adoption of drafting devices of this kind and it could therefore be only a matter of time before the former controversy was renewed.

16. The next occasion on which any of the foregoing Articles was considered by the International Congress of Zoology was in 1907 when the Boston Congress made a small change in Article 26 by substituting (in English) the sentence "For practical purposes the date 1st January, 1758, is accepted in these Rules . . ." for the expression (in the substantive French text) "La date de 1758 est donc acceptée . . .". This did not directly raise the issue which we are considering and accordingly did not affect the relative positions of either side in the controversy with which we are concerned.

17. Three years later (in 1910) the International Commission itself precipitated a fresh outburst of controversy by openly taking sides in this matter in an *Opinion* (*Opinion* 20, published in 1910, *Smithson. Publ.* 1938: 48-50) in which they gave their answer to a question put to them by Dr. David Starr Jordan in regard to the availability of the generic names proposed by Gronovius in the work entitled *Zoophylacium Gronovianum* published in 1763. Neither in this nor in any subsequent work did Gronovius accept the principles of binominal nomenclature. Throughout his whole working life he adopted the system of nomenclature current prior to 1758, that is to say he accepted the concept of a genus and employed a generic name in each of the scientific designations which he applied to various animals but in every case he placed after the generic name not a single word to represent the name of the species but a brief diagnosis of its distinctive characters. The case put to the Commission was thus in the nature of a test case. The answer given by the Commission was an unequivocal affirmation of the availability of the names proposed by Gronovius. A year later (1911, *Smithson. Publ.* 2013: 82-83, 87-88) this view was implicitly re-affirmed in *Opinion* 35 ("Types of genera of binary but not binominal authors") and in *Opinion* 37 ("Shall the genera of Brisson's '*Ornithologia*,' 1760, be accepted?").

18. These decisions naturally gave great satisfaction to those zoologists who desired to use generic names published after 1757 by non-binominal authors but equally naturally they gave great offence to those zoologists who adopted the strict binominalist standpoint. As was to be expected, the result was a violent renewal of the former controversy on this subject. Repeated efforts were made at successive International Congresses of Zoology to debate the validity of the interpretation of the expression "nomenclature binaire" given

by the Commission in their *Opinion* 20. The Commission at that time were resolutely opposed to any discussion of this question and for twenty years were successful in advancing procedural objections to this matter being brought before the Congress. When, however, a fresh effort was made to discuss this question at the meeting of the Eleventh International Congress of Zoology, held at Padua in 1930, the Section on Nomenclature permitted a motion on this subject to be brought forward. An acrimonious debate ensued, at the conclusion of which a vote was taken which rejected (by a majority) the view expressed by the Commission in *Opinion* 20 and categorically affirmed the strictly binominalist interpretation of Article 25. The view expressed by this vote in the Section was affirmed at the final *Concilium Plenum* of the Padua Congress (again by a majority). At that meeting, however, the whole of the Resolutions adopted by the Section were voted upon *en bloc* and no discussion of individual items was practicable or permitted.

19. The proceedings at Padua in this matter gave rise to a bitter controversy which did considerable harm to the rule of international law in matters of zoological nomenclature. Clearly some special effort was required to re-establish harmony and to provide an atmosphere in which it would be possible to find a solution which would be generally acceptable. It was with this object in view that at Lisbon in 1935 the *Comité Permanent des Congrès Internationaux de Zoologie* invited your predecessor as President of the Section of Nomenclature at the Twelfth International Congress of Zoology to give further consideration to this matter. Your predecessor therefore invited us, the International Commission on Zoological Nomenclature, to re-examine the question of the interpretation of the expression "nomenclature binaire" as used in the *Règles* and to submit a Report to you, Sir, as his successor, at the Thirteenth International Congress of Zoology. This invitation was accepted by us on the understanding that we should be free to traverse the whole field and to submit not only our conclusions on the particular question of interpretation involved but also to put forward any recommendations for action which our investigations might prompt us to offer. Our acceptance of your predecessor's invitation was recorded by us in the Report which we submitted to the Lisbon Congress and the method of procedure so agreed upon was unanimously approved at the final *Concilium Plenum* of that Congress.

## II. The meaning of the expression "nomenclature binaire" as used in the existing provisions of the "Règles"

20. *The nature of the problem:* The historical sketch given in the preceding section shows very clearly that the problem presented by the use of the expression "nomenclature binaire" as used in proviso (b) to Article 25 of the *Règles* is due to no accident of drafting but has its origin in a desire on the part of the draftsmen of the *Règles* to find a form of words which, by reason of its apparent ambiguity, would be acceptable both to those zoologists who accepted only those generic names published after 1757, the authors of which adopted the system of binominal nomenclature and also to those zoologists who, though themselves binominalists in their own work, nevertheless attached importance to the maintenance of certain generic names published after 1757 by authors

who accepted the principle that for taxonomic purposes allied species should be united in a single genus and that the scientific designation of a species should start with a generic name but who did not adopt the binominal system of nomenclature for species and therefore continued to use the older system of nomenclature under which within a given genus a species was designated not by a name consisting of a single word but by descriptive epithets constituting a brief specific diagnosis.

21. The problem with which we are concerned is however not what was the intention of the draftsmen of the *Règles* when they inserted the expression "nomenclature binaire" in proviso (b) to Article 25. Our task is entirely different, being to determine what, on a due and proper construction of the words used in the *Règles*, is the meaning which does in fact adhere to the expression "nomenclature binaire" as used in that document. We have therefore to determine (1) whether the expression "nomenclature binaire" as used in Proviso (b) to Article 25 is identical in meaning with the expression "nomenclature binominale," or (2) whether, as there used, this expression has a wider meaning and denotes a system of nomenclature which may or may not be binominal for species but which is distinguished from every other system of nomenclature of species by the acceptance of the proposition that the scientific designation (i.e. the "dénomination scientifique" specified in Article 2 of the *Règles*) of a species embraces two concepts, the first that of the genus, the second that of the species.

22. *The meaning of the expression "nomenclature binaire" as used in the "Règles":* In view of the conditions under which the present task was entrusted to us and on which it was accepted by us, we regard it as our duty to approach *de novo* the question of the interpretation of the expression "nomenclature binaire" as used in the *Règles*. In discharging the duty entrusted to us, we have therefore considered this question solely from the juridical standpoint and have set aside as irrelevant all the arguments previously advanced in this matter either by our predecessors in the Commission or by individual zoologists, except in so far as those arguments were directed to this particular aspect of the problem.

23. The whole controversy in regard to the meaning of the expression "nomenclature binaire" has centred around the use of that expression in Proviso (b) to Article 25, for it is that Article which determines whether a given generic name is possessed of rights under the Law of Priority as from the date on which it was first published (i.e. as from which, in the words of Proviso (a) to Article 25, it was first "divulgué dans une publication"). As used in Article 25 the expression "nomenclature binaire" is a term of art, for the meaning of which no clue is given in that Article. Accordingly, if this was the sole place in the *Règles* in which this expression occurred, it would be necessary for us first to examine the leading dictionaries in the French language and other authoritative sources bearing on that language for the purpose of determining the meaning or meanings which properly attach in that language to the adjective "binaire." Having reached a conclusion on this subject we should have next to consider what meaning properly attaches to the expression "nomenclature binaire" as applied to the system of nomenclature embodied in the *Règles*. In this second part of our inquiry it would be our duty to take



note of the fact that Proviso (b) to Article 25 is concerned with the status of names proposed by authors, who had applied the principles of binary nomenclature ("ait appliqué les principes de la nomenclature binaire") and not merely with the status of names proposed by authors who had applied binary nomenclature. It would be necessary for us in these circumstances to consider whether the insertion of the words "les principes de" before the words "nomenclature binaire" qualified the meaning which in this context should be applied to the latter expression.

24. It is a well-recognised principle of interpretation that the same meaning is to be attached throughout any given document to every expression used therein, except in so far as the document expressly provides that a given expression as used in one part is to be interpreted in a sense different from that attaching to that expression as used in other parts of the document. Our first task was therefore to ascertain whether, and if so, where, the expression "nomenclature binaire" is used in the *Règles* in addition to its use in Proviso (b) to Article 25. On this question we found that the expression "nomenclature binaire" is used on two occasions in the *Règles*, the first being in Proviso (b) to Article 25, the second being in Article 26. As already explained (paragraph 23), the first of these Articles, when referring to "nomenclature binaire," throws no light on the meaning to be attached to that expression. We accordingly next turned our attention to Article 26.

25. The reference to "nomenclature binaire" in Article 26 is to be found in the first sentence, which reads as follows:—"La dixième édition du *Systema Naturae* de Linné (1758) est l'ouvrage qui a inauguré l'application générale de la nomenclature binaire en zoologie." This passage is highly significant, for it lays down the proposition that in no book published prior to the appearance in 1758 of the 10th edition of the *Systema Naturae* of Linnaeus had "nomenclature binaire" been generally applied and that in the above work Linnaeus had introduced some novel feature of nomenclature which distinguished it from all previously published works and thus made the 10th edition of the *Systema Naturae* the work which inaugurated the general application of binary nomenclature in zoology ("qui a inauguré l'application générale de la nomenclature binaire en zoologie"). The second sentence of Article 26 emphasises and reinforces the significance attached to the 10th edition of the *Systema Naturae* by the first sentence. The opening words of the second sentence of Article 26 were amended in English at the Seventh International Congress of Zoology held at Boston in 1907, but unfortunately through some unaccountable oversight no text in the French language was approved for incorporation in the substantive French text of the *Règles*. For the moment, therefore, the position is that, pending the removal of this anomaly (on which a separate recommendation is being submitted to the Paris Congress), the first part of the authoritative text of this sentence is in the English language and the second part in the French language. The text of this sentence accordingly reads as follows:—"For practical purposes the date 1st January, 1758, is accepted in these Rules comme point de départ de la Nomenclature zoologique et comme entrée en vigueur de la loi de priorité." When we read these two sentences together, we see that the 10th edition of the *Systema Naturae* of

Linnaeus not only inaugurated the general application of binary nomenclature in zoology but is also to be taken as the starting point of zoological nomenclature and the work as from which the Law of Priority enters into force.

26. Thus Article 26 establishes the proposition that the feature which distinguishes "nomenclature binaire" from all other types of nomenclature in zoology is a feature which first appeared in the 10th edition of the *Systema Naturae* of Linnaeus. This is a proposition of cardinal importance, for clearly, if we can detect the feature in the nomenclature used by Linnaeus in the 10th edition of the *Systema Naturae* which distinguished the nomenclature so used from any system of nomenclature previously used in zoology, we shall thereby have detected the feature which distinguishes "nomenclature binaire" from all other types of zoological nomenclature.

27. The task so set is extremely simple, for the nomenclature used by Linnaeus in the 10th edition of the *Systema Naturae* follows that previously used by Linnaeus and other zoologists in every respect except one. The one feature of the nomenclature used by Linnaeus in the 10th edition of the *Systema Naturae* which was absolutely novel was the consistent application of a binominal system of nomenclature for species. Under this system each species was given a specific name (*nomen specificum*) consisting of two words, of which the first was the generic name (*nomen genericum*), the second the trivial name of the species itself (*nomen triviale*). For many years Linnaeus and other authors had applied a generic name to each species, but the substitution of a specific trivial name consisting of a single word for the polyverbal diagnostic phrases formerly used to indicate the species concerned was a complete innovation. It was this innovation which both attracted immediate attention and secured general approval from contemporary zoologists who recognised that in making this change Linnaeus had introduced a new and most valuable feature into zoological nomenclature.

28. Now that we have established that it was the binominal character of the system of nomenclature in zoology introduced by Linnaeus in the 10th edition of his *Systema Naturae* which distinguished—and which alone distinguished—the system of nomenclature there employed from that employed in all previous works on zoology, we see at once that this must be the feature of the nomenclature used in that book which leads Article 26 to lay down the proposition that this was the book which inaugurated the general application of binary nomenclature ("l'ouvrage qui a inauguré l'application générale de la Nomenclature binaire"). Thus we see that in Article 26 the expression "nomenclature binaire" is completely synonymous with the expression "nomenclature binominale."

29. Now that we know beyond possibility of doubt what is the meaning which is properly attributable to the expression "nomenclature binaire" as used in Article 26, we know also the meaning similarly attributable to that expression as used in Proviso (b) to Article 25, for (as explained in paragraph 24 above) the meaning attached to this expression in one part of the *Règles* must be the same as that attached to it in every other part, having regard to the fact that the *Règles* do not contain any express (or even implied) provision requiring a different interpretation to be adopted in one part from that adopted in another. We thus reach the conclusion that the meaning of the expression

"nomenclature binaire" as used in Proviso (b) to Article 25 is identical with the meaning which attaches to the expression "nomenclature binominale" and that the meaning of the Proviso as a whole would remain absolutely unchanged if the adjective "binominale" were substituted for the adjective "binaire."

### III. Conclusions and recommendations

30. In the preceding Section we have established (1) that the expression "nomenclature binaire" as used in the *Règles* as they exist today is completely synonymous with the expression "nomenclature binominale" and consequently (2) that under the *Règles* no generic name has availability under the Law of Priority (Article 25), unless, *inter alia*, the author by whom it was published was an author who in the book concerned applied the principles of binominal nomenclature.

31. We turn now to consider whether the foregoing meaning of Article 25 is the meaning which it is desirable that that Article should have, for clearly, if it is not, it would be our duty to recommend the directions in which it is desirable that that Article should be amended. At the same time we consider what amendments of drafting character are required in Article 25 in order to eliminate all possibilities of doubt in the future as to the meaning intended.

32. Article 26 clearly lays down the proposition that the feature in the nomenclature used by Linnaeus in 1758 in the 10th edition of his *Systema Naturae* which makes that book the starting point of zoological nomenclature and the book as from the appearance of which the Law of Priority begins to operate, is the binominal character of the nomenclature used for species. This being so, it is logical and proper that Article 25, as the Article which prescribes the conditions in which the Law of Priority is to apply, should expressly refer to the chief characteristic of the Linnean system of nomenclature and should require its acceptance by any author to be a condition precedent to the recognition of the availability of any generic names which he may propose. We agree therefore that the object underlying the insertion of Proviso (b) to Article 25 is sound and should be preserved. In reaching this conclusion we do not prejudice the question whether there should be inserted in this Article provisions which would in certain circumstances secure availability for generic names published after 1757 by non-binominal authors. This latter subject raises issues of an entirely different kind which we discuss in paragraphs 34-36 below.

33. On the question of drafting, we are unhesitatingly of the opinion that the misleading and ambiguous expression "nomenclature binaire," which (as we have seen) has been the cause of so much controversy, should be deleted both from Proviso (b) to Article 25 and from Article 26 and that in each case the expression "nomenclature binominale" should be inserted in its place.

34. We have now to consider whether special provisions should be inserted in Article 25 to secure that in certain circumstances generic names published after 1757 should be available under the Law of Priority in those cases where the authors by whom the names were published did not accept the principles of binominal nomenclature. We are definitely of the opinion that it is desirable

that such provision should be made, if not in this Article, at least in some part of the *Règles*. We hold this view because it was the existence of generic names which were important (in the sense that they were commonly applied to well-known genera), and would be rendered invalid if the strict binominalist view were to be enforced, which led to the arid controversy regarding the meaning of the expression "nomenclature binaire" which has been in progress intermittently for the last 50 years or more. It would, in our view, be most unreasonable to take action which would invalidate these names at the very moment when, as we hope, we are on the point of reaching a permanent settlement of the present problem. We have in mind particularly the case of the generic names in the Class Aves proposed by Brisson in 1760 in his *Ornithologia*, for in that case it was the erroneous interpretation of Article 25 given by the International Commission on Zoological Nomenclature in *Opinion* 20, supplemented by the express but incorrect statement in *Opinion* 37, which has misled the ornithologists into believing that they were acting in accordance with the *Règles* in accepting the generic names proposed by Brisson in 1760. To reverse the decision in regard to Brisson's generic names would clearly inflict great hardship and would certainly give rise to greater confusion than uniformity. Some action should, we consider, be taken as part of the proposed general settlement to prevent such a state of affairs from arising. We have referred especially to the problem presented by Brisson's generic names but we do not doubt that there are names now commonly in use for other important genera elsewhere in the Animal Kingdom, which are invalid because they were originally proposed by authors who did not accept the principles of binominal nomenclature but which are regarded as available by the zoologists by whom they are being used, those zoologists basing their opinion on the interpretation, now seen to be erroneous, given by the International Commission in 1910 in their *Opinion* 20.

35. We have considered carefully the question of the machinery required to ensure that in cases such as those discussed above the clarification of Article 25 which we recommend should not have the effect of rendering invalid names now commonly in use for important genera, in those cases where the original authors of those names did not apply the principles of binominal nomenclature in the books in which they first published those names. If no powers existed for the suspension of the *Règles* in those cases where the strict application of the *Règles* would clearly result in greater confusion than uniformity, we should certainly have recommended the addition to Article 25 of provisions designed to secure this end in the case of well-known generic names originally proposed by non-binominal authors. But ever since 1913 there has existed a method prescribed by the International Congress of Zoology for meeting cases of this kind, for in that year the Monaco meeting of the Congress conferred plenary powers upon the International Commission on Zoological Nomenclature to suspend the *Règles* in any case where the Commission was satisfied that the strict application of the *Règles* would lead to greater confusion than uniformity. There is therefore no need to devise new powers for the purpose which we have in view. There is however a need for the incorporation in the *Regles* of an Article formally recording the decision in this matter taken by the Monaco Congress. It is our intention to recommend the Thirteenth International Congress of Zoology during its present meeting to approve the insertion of



such a provision in the *Règles*. It is further our intention to recommend that the Congress approve the addition to the *Règles* of a Schedule (to be known as the "First Schedule") in which will be recorded every decision taken by the International Commission, when acting under their plenary powers on behalf of the Congress, the present *Appendice* being known in future as the "Second Schedule" (to the *Règles*). In these circumstances we consider that there is no need to insert any special provision in Article 25 for the purpose of dealing with the particular case of generic names which it may be desired to preserve notwithstanding the fact that they were proposed by authors who did not on the occasion in question apply the principles of binominal nomenclature.

36. Our conclusion on this aspect of our problem is that, when (as we propose) the Plenary Powers Resolution of March 1913 is formally incorporated into the *Règles*, everything necessary will have been provided if in addition the two following proposals are also adopted:—

- (1) In view of the fact that the generic names proposed by non-binominal authors now in common use in certain groups are in such use by reason of the acceptance by the specialists concerned of the interpretation of Article 25 given by the International Commission in *Opinion* 20, which is now seen to have been erroneous, we are of the opinion that all practicable speed should be shown in securing availability under Article 25 for such names. We accordingly recommend that, in the Article proposed to be added to the *Règles* embodying the provisions of the Plenary Powers Resolution, there should be inserted a provision exempting applications in cases of the type here under consideration from the requirement that a period of at least one year shall elapse between the date on which the application is despatched for advertisement and the date on which the Commission may take a final decision thereon.
- (2) Having regard to the fact that as far back as 1911 the Commission rendered an *Opinion* (*Opinion* 37) in which (although erroneously, as we now see) they stated that the generic names proposed by Brisson in 1760 in his *Ornithologia* complied with the requirements of the *Règles* we recommend that the present Congress should direct that the entry "Brisson (M.J.), 1760, *Ornithologia sive Synopsis methodica sistens Avium divisionem in Ordines*" be added forthwith to the proposed First Schedule as the title of a work, generic names in which are to be accepted as having availability under Article 25, notwithstanding the fact that they were published by an author who in the work concerned did not apply the principles of binominal nomenclature.

37. The clarification of Article 25 which we recommend will render obsolete or otherwise incorrect the whole or part of four of the *Opinions* rendered by the International Commission on Zoological Nomenclature. The following is the action which we recommend should be taken in regard to each of these *Opinions*:—

- (1) *Opinions* 20 and 37. To be cancelled.
- (2) *Opinion* 24. In the first sentence of the "Summary" the words "who

used a non-binominal nomenclature" to be substituted for the words "who used a binary (Art. 25) (though not binominal) nomenclature."

- (3) *Opinion 35.* The title "On the species eligible for selecting as the type of a genus, where some or all of the originally included species were not cited by binominal names" to be substituted for the title "Types of genera of binary but not binominal authors."

38. The drafting amendments to Articles 25 and 26 and the incorporation in the *Règles* of an Article embodying the Resolution by which at Monaco in 1913 the Ninth International Congress of Zoology conferred on the International Commission on Zoological Nomenclature plenary powers to suspend the *Règles* in certain cases, which we recommend, together with (a) the slight modification of the existing procedure when generic names proposed after 1757 by non-binominal authors are under consideration by the Commission and (b) the proposed immediate addition of "Brisson; 1760, Ornithologia" to the suggested First Schedule as a book, the generic names in which are to be accepted as having availability under Article 25, notwithstanding the fact that they were published by an author who in the work concerned did not apply the principles of binominal nomenclature, constitute integral parts of a single recommendation and we ask that they may be treated in this light. The adoption of a solution in the foregoing terms will, we are confident, provide an equitable and logical settlement of a long standing difficulty. We therefore earnestly commend this proposal for your favourable consideration and it is our sincere hope that under your guidance these proposals may secure the approval of the Section on Nomenclature and, on its advice, the approval of the Congress in *Concilium Plenum*.

#### IV. Summary of principal conclusions and recommendations

39. We summarise our principal conclusions and recommendations as follows :—

- (1) We are of the opinion that under a due and proper interpretation of the wording used in the *Règles Internationales de la Nomenclature Zoologique*, the expression "nomenclature binaire" as used therein is identical in meaning with the expression "nomenclature binominale."
- (2) We recommend that, in order to eliminate all possibility of doubt in the future regarding the meaning of Proviso (b) to Article 25, the expression "nomenclature binominale" be substituted therein for the expression "nomenclature binaire."
- (3) We recommend that the same change of wording be made in the first sentence of Article 26.
- (4) It is desirable that the *Règles Internationales* should contain express provision to secure that, where the name commonly in use for a well-known genus is a name which was originally published after 1757 by an author who in the book concerned did not apply the principles of binominal nomenclature, that name may nevertheless be made available under Article 25, when the International Commission on Zoological Nomenclature are satisfied that the strict application of the *Règles* would clearly result in greater confusion than uniformity.

- (5) If no power had existed to render available generic names falling in the class specified in (4) above, we should certainly have thought it necessary to recommend that provisions to that end should be inserted in Article 25, but in view of the fact that plenary powers to suspend the *Règles* in such cases have already been conferred upon the International Commission on Zoological Nomenclature by the International Congress of Zoology, there is no need for additional powers to be granted for the present purpose. It is, however, essential, in our view, that the existing powers should now be formally embodied in an Article of the *Règles*. We consider this essential as part of our general plans for introducing order into the present *Règles*, but, quite apart from this consideration, we are of the opinion that the formal recognition in the text of the *Règles* of the principle that in appropriate circumstances the provisions of the *Règles* can be suspended forms an indispensable part of any settlement of the problem raised by the use hitherto in the *Règles* of the expression "nomenclature binaire," for it is only by this recognition that those zoologists who attach importance to the maintenance of certain generic names published after 1757 by authors who did not apply the principles of binominal nomenclature can be assured that adequate means exist in the *Règles* themselves for the consideration of those cases to which they attach great importance. We accordingly recommend that, as part of the general settlement proposed, an Article should be inserted in the *Règles* formally embodying the Resolution adopted by the International Congress of Zoology at Monaco, by which they conferred plenary powers upon the International Commission on Zoological Nomenclature to suspend the *Règles* in certain cases. We further recommend that there should be added to the *Règles* a Schedule (to be known as the "First Schedule," in contrast to the present *Appendice* to be known in future as the "Second Schedule") in which are to be recorded all decisions taken by the International Commission under its plenary powers.
- (6) In view of the fact that it was largely due to the failure of the International Commission on Zoological Nomenclature earlier to detect the erroneous nature of the interpretation of Article 25 given by them in *Opinion* 20, we consider that, now that their error has been detected, the machinery to be used for dealing exceptionally with cases of the class concerned which call for the suspension of the *Règles* should be such as to permit the most expeditious action. We accordingly recommend that, in the Article embodying the plenary powers resolution which we recommend should now be added to the *Règles*, there should be inserted a provision exempting applications relating to the status of generic names published after 1757 by authors who in the work concerned did not apply the principles of binominal nomenclature from the requirement that a period of at least one year shall elapse between the date on which the application is despatched for advertisement and the date on which the Commission may take a final decision thereon.

- (7) Having regard to the fact that by the incorrect statement embodied in the Commission's *Opinion* 37, ornithologists have been misled ever since 1911 into believing that the generic names proposed by Brisson in 1760 in his *Ornithologia* complied with the provision of the *Règles*, the entry "Brisson (M.J.) 1760, *Ornithologia sive Synopsis methodica sistens Avium divisionem in Ordines*" be added forthwith to the proposed First Schedule to the *Règles*, as the title of a book, generic names in which are to be accepted as having availability under Article 25, notwithstanding the fact that they were published by an author who in the work concerned did not apply the principles of binominal nomenclature.
- (8) Four *Opinions* previously rendered by the International Commission on Zoological Nomenclature are now seen to be incorrect in whole or in part. As regards these, we recommend :—
- (a) that *Opinions* 20 and 37 be cancelled ;
  - (b) that the words " who used a non-binominal nomenclature " be substituted for the words " who used a binary (though non-binominal) nomenclature " in the first sentence of the " Summary " to *Opinion* 24 ;
  - (c) that the words " On the species eligible for selection as the type species of a genus, where some or all of the originally included species were not cited by binominal names " be substituted for the words " Types of genera of binary but not binominal authors " as the title of *Opinion* 35.

40. The present Report was unanimously adopted by the International Commission on Zoological Nomenclature at a meeting held at the Sorbonne to-day, 22nd July, 1948.

*Signed on behalf of the International Commission on  
Zoological Nomenclature,*

FRANCIS HEMMING,  
*Secretary to the International Commission.*

Paris,  
22nd July, 1948.